

Remarks:

These remarks are responsive to the Office action dated December 7, 2009. Prior to entry of this response, claims 17-36 were pending in the application, with claims 21, 22, 26, 27, and 29-35 having already been withdrawn from consideration. By way of this response, claims 17, 19-20, 23, 28 and 36 are amended, claims 31-35 are cancelled without prejudice, and claim 37 is added. Applicant respectfully requests reconsideration of the application and allowance of the pending claims.

Rejections under 35 U.S.C. § 103

Claims 17-19, 23-25, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,938,051 (Schöller et al., hereinafter Schöller).

The Applicant respectfully traverses the rejection of claims 17-19 and 23-25. Nevertheless to further prosecution of the application, Applicant amends claim 17 to recite:

A stacking column for holding warehouse items on support arms of ratchet levers which pivot around a rotational axis from a resting position into a working position, the stacking column comprising a plurality of ratchet levers that are located adjacent to one another and co-operate with one another, wherein a supporting element rotates with each ratchet lever of the plurality of ratchet levers and lies on or against an underlying ratchet lever in the working position, wherein, for each ratchet lever and support lever of the plurality of ratchet levers and support levers, the support lever is either integral with the ratchet lever at the rotational axis or the support lever is independently secured to the rotational axis as a separate part from the ratchet lever.

One example embodiment of such a stacking column is shown in FIGS. 1-6 of the present application. FIG. 3 of the application and FIG. 1 of Schöller are provided below.

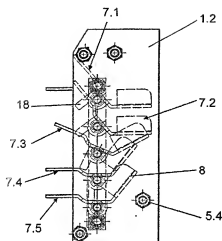


Fig. 3

Embodiment of Applicant

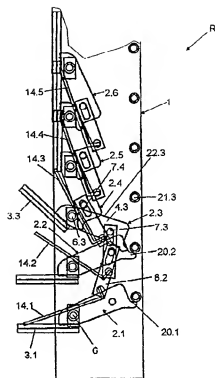


Fig. 1

Device of Schöller

In this embodiment, a supporting element (18) of each ratchet lever (7.1-7.5) projects downward from an overlying (for example, 7.3) ratchet lever towards an underlying ratchet lever (for example, 7.4). The supporting element is located adjacent to the rotational axis of the overlying ratchet lever and rotates with the overlying ratchet lever. The support element may either be an integral part of the ratchet lever, or may be attached to the rotational axis of the ratchet lever as a separate part.

With such a device, each ratchet lever directly interacts with an underlying ratchet lever in the working position, as the support element lies on or against the underlying ratchet lever. The support element provides an upward supporting force for holding a warehouse item on the support arm and provides a downward force to hold the underlying ratchet lever in the working position. The abutment of a control arm (8) against the rotational axis of an overlying ratchet lever also provides a supporting force to the support arm to bear the weight of the warehouse item.

Additionally, as the support element of each ratchet lever may coordinate movement of ratchet levers, each ratchet lever will remain in the working position until the topmost ratchet lever is moved into the resting position. Even if the warehouse item is removed from the support arm, a ratchet lever may not return to the resting position because of the downward force provided by the overlying support element. Further, as recited in claim 23, each underlying ratchet lever may include an upward projecting guide tongue on a top face. The supporting arm may slide over the guide tongue and a face of the supporting arm may abut the guide tongue. The abutment of the guide tongue and the face of the supporting arm may assist in securing the stacking column in the working position in a self-restraining manner.

In contrast, Schöller does not disclose or suggest such a configuration for a stacking column. The Office asserts that the device of Schöller includes a supporting element at the rotational axis of the ratchet lever that rotates with the ratchet lever on page 3 of the Detailed Action, as follows.

Regarding claim 17, Scholler discloses a stacking column (Fig 1, R) for holding warehouse items on the support arms (Fig 1, #3) of ratchet levers (Fig 1, #2) , which pivot around a rotational axis from a resting position into a working position (Abstract, lines 2-4), comprising a plurality of ratchet levers that are located above one another (as shown in Fig 1), the supporting element (Fig 1, #8) also rests on the rotational axis as a separate part.

The Applicant respectfully disagrees. Referring to FIG. 1 of Schöller above, Schöller discloses a connecting strip (8.2) attached to a bolt (7.3) of an overlying ratchet lever (for example, 2.6) and an intermediate ratchet (14.1) of an underlying ratchet lever (for example, 2.5). The bolt where the connecting strip is attached lies on a distal end of the control arm (20.2), relative to the supporting arm (3.1) and the rotational axis (6). As such, the connecting strip rotates a shorter distance in an opposing direction relative to the rotation of the ratchet lever, and not directly with the ratchet lever. Further, the connecting strip does not contact the underlying ratchet lever and does not provide a supporting force for holding of warehouse items. Therefore, the Applicant submits that

the connecting strip does not meet all of the elements of the “support element” of claim 17.

This configuration has the disadvantage that the intermediate ratchet and connecting strip, while providing a downward force to push the support arm of an underlying ratchet lever into the working position, do not provide any upward force to support the supporting arm in the working position. Thus the supporting arm must rely on only the abutment of the control arm against the nose to bear the weight of the warehouse item. Additionally, the intermediate ratchet applies a downward force at a distal end of the underlying support arm. Taken together, the support arm and the control arm are more likely to bend or warp with use than those in the configuration of the present application. The device Schöller has yet another disadvantage, in that more moving parts, such as the control strip and the intermediate ratchet, are required to coordinate movement of ratchet levers than are required in the configuration of the present application, which may increase complexity and cost of the device.

Therefore, for at least the reason that the cited reference does not teach or suggest all of the elements of claim 17 as amended, claim 17 is believed to be allowable, Applicant respectfully requests the rejection of claim 17 be withdrawn. Further, claims 18-19 and 23-25 depend from claim 17. Thus, the Applicant respectfully requests the rejection of claims 17-19 and 23-25 be withdrawn for at least the reasons discussed above.

Next, the Applicant respectfully traverses the rejection of claim 36. Nevertheless to further prosecution of the application, Applicant amends claim 36 to recite:

A stacking column for holding warehouse items on support arms of ratchet levers which pivot around a rotational axis from a resting position into a working position, the stacking column comprising a plurality of ratchet levers that are located adjacent to one another, wherein each ratchet lever of the plurality of ratchet levers comprises a support arm, a control arm, and a supporting element, wherein the support arm, the control arm, and the supporting element comprise a folded sheet metal blank, or the supporting element is secured to the rotational axis as a separate part.

The Applicant respectfully traverses the assertion that the language from original claim 36 that recites a "sheet metal blank from which the supporting element is folded" is a method of forming the device, as it describes a structural feature (i.e. the recited parts comprise a folded sheet metal blank).

Nevertheless, claim 36 has been amended herein to recite this feature in a more clearly structural manner.

According to amended claim 36, each ratchet lever of the plurality of ratchet levers has a configuration which includes at least three structural components: a support arm, a control arm, and a supporting element, wherein these components comprise a folded sheet metal blank. The ratchet lever may include additional parts and recesses for insertion of pins and attachment within the stacking column. This configuration has the potential advantage that a single ratchet lever may be easily manufactured by folding each component is carried out to form a finished ratchet lever from a sheet metal blank, which may allow for simplified and low-cost manufacturing.

In contrast, Schöller does not describe such a configuration and therefore lacks the potential advantage of the claimed configuration. The Applicant thus believes that claim 36 as amended is allowable. Accordingly, the Applicant respectfully requests the rejection of claim 36 be withdrawn for at least these reasons.

Claims 20 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schöller in view of U.S. Patent No. 6,234,743 (Strobel).

As discussed above, Schöller does not disclose each and every element of claim 17. Additionally, in the rejection of claim 20, the Office action asserts that Schöller discloses a control arm which abuts the rotational axis of the (overlying) ratchet lever in the working position on page 7 of the Detailed action, as follows.

Regarding claim 20, Scholler discloses a stacking column comprising
a control arm (Fig 1, #2.3) abutting the rotational axis of the next ratchet
lever (Fig 1, #2.2 , #3.2, &14.2) in the working position.

The Applicant respectfully disagrees. As is shown above in FIG. 1 of Schöller, the control arm (20.1) of each ratchet lever abuts a nose (21.3) or stud in the lateral cheek of the stacking column, and not the rotational axis (6.3) of the overlying ratchet lever, again contributing to the disadvantage that more parts are required, which may increase cost of production.

Strobel does not cure the deficiencies of Schöller. Thus, the Applicant respectfully submits claim 17 is in condition for allowance. Also, the Applicant respectfully submits claim 20 is in condition for allowance. Claims 20 and 28 depend from claim 17. Thus, Applicants respectfully request the rejection of claims 20 and 28 be withdrawn for at least the reasons discussed above.

New Claim

Claim 37 is new and is independent of other claims. Support for claim 37 can be found, for example, on pages 6-8 and FIG. 3 of the published international application. Claim 37 cites limitations to the control arm of each ratchet lever in the stacking column, wherein a portion of the control arm contacts the rotational axis in the working configuration. Applicant can find no disclosure of these limitations in the cited references. Therefore, Applicant respectfully submits that new claim 37 should be allowable.

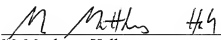
Conclusion:

Applicant believes that this application is now in condition for allowance, in view of the above amendments and remarks. Accordingly, Applicant respectfully requests that the Examiner issue a Notice of Allowability covering the pending claims. If the Examiner has any questions, or if a telephone interview would in any way advance prosecution of the application, please contact the undersigned attorney of record.

Please charge any cost incurred in the filing of this response, along with any other costs, to Deposit Account No. 503397.

Respectfully submitted,

ALLEMAN HALL MCCOY RUSSELL &
TUTTLE LLP



M. Matthews Hall
Registration No. 43,653
Customer No. 50488
Attorney/Agent for Applicant/Assignee
806 S.W. Broadway, Suite 600
Portland, Oregon 97205
Telephone: (503) 459-4141
Facsimile: (503) 459-4142